

Work Order ID 106067

106067

Page 1

August-28-13 12:39:59 PM

Item ID: D2012-115-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: L-Bracket

Start Date: 8/28/13 Start Qty: 16.00

16

Cust Item ID:

Required Date: 8/28/13 Req'd Qty: 16.00

16

Customer:

Reference:

Approvals: Process Plan: ML5

Date: 13-08-25

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D2012-115	B

100 0.00

100 FLOW WATER JET 16 0 Jm3-11-15
Waterjet

0.00

Memo
1-Cut as per Dwg
Dwg Rev: B
Prog Rev: B
2-Deburr if necessary

110 0.00

110 QC2- Inspect parts off machine FAI/FAIB 16 0 Jm3-11-15
QC

0.00

Memo

120 0.00

120 QC8- Inspect parts - second check 16 0 Jm3-11-15
QC

0.00

Memo

DAS 27/9/13

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS						
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>					
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>					
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>					
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												
Other												
Process												
Supplier												
Training												
Unapproved												
FAULT CATEGORY												
Landing Gear	General											
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>					Pressure/Forced <input type="checkbox"/>			
	Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>					Temperature/Cure <input type="checkbox"/>			
	Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>					Weld <input type="checkbox"/>			
	Crushed/Crimped <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>					Wrong Stock Pulled <input type="checkbox"/>			
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>								
	Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>								
	Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>								
	Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>	Other <input type="checkbox"/>								
	Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>									
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>									
	Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>									

Work Order ID 106067

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Page 2

August-28-13 12:39:59 PM

Item ID: D2012-115-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: L-Bracket

Stop

NS2

Start Date: 8/28/13 Start Qty: 16.00

16

Cust Item ID:

Required Date: 8/28/13 Req'd Qty: 16.00

16

Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

Form as per dwg
NC BRAKE

0.00



DAS
30
9-89

14

13/11/20

130

Brake NC

Memo

0.00

140

QC5- Inspect part completeness to step on W/O

0.00

DAS
27
9-89
13/11/20

16

150

Identify as per dwg & Stock Location: W/A

0.00

W/A 0.00

16

13-11-21

150

Packaging

Memo

Packaging

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
				Bending <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>				
Centre Not Concentric to O/S				BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>				
Cracks <input type="checkbox"/>				Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>				
Crushed/Crimped <input type="checkbox"/>				Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>				
Cuffs <input type="checkbox"/>				Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>					
Heat Treat <input type="checkbox"/>				Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>					
Inspection Strip in Tube <input type="checkbox"/>				Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>					
Ripples in Bend <input type="checkbox"/>				Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>		Other <input type="checkbox"/>				
Torque Waves in Extrusion <input type="checkbox"/>				Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>						
Turning Sequence <input type="checkbox"/>				Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>						
Wave/Twist in Tube <input type="checkbox"/>				Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>						

Work Order ID 106067

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Page 3

August-28-13 12:39:59 PM

Item ID: D2012-115-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: L-Bracket

Stop

NS2

Start Date: 8/28/13 Start Qty: 16.00

16

Cust Item ID:

Required Date: 8/28/13 Req'd Qty: 16.00

16

Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

160

QC21- Final Inspection - Work Order Release

160

QC

Quality Control

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

0.00

Memo

0.00

13/11/21 JJ

13-11-21

NCR: Yes / No

DQA: Date:

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>								
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector				
Doc/Data														
Equip/Tooling														
Operator														
Material														
Setup														
Other														
Process														
Supplier														
Training														
Unapproved														
FAULT CATEGORY														
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	

Picklist Print

August-28-13 12:39:58 PM

Page 1

Work Order ID: 106067

Parent Item: D2012-115-1

Start Date: 8/28/13

Required Date: 8/28/13

Parent Item Name: L-Bracket

Start Qty: 16.00

Required Qty: 16.00

Comments: IPP REV:A 12.05.29 MADE IN HOUSE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304S16GA 304/316 Sheet .063		Purchased	No			100	sf	246.8822	0.016	0.2694736	0.5		Jm 13-11-15
---------------------------------	--	-----------	----	--	--	-----	----	----------	-------	-----------	-----	--	-------------

Location	Loc Qty	Loc Code
MAT020	246.8821686	
122245	0.1713688	
123136	140.8	
124428	23.61	
125599	5.410631	
M126159	76.8901688	

126915

126915

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear	General										
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>							Pressure/Forced <input type="checkbox"/>
	Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>							Temperature/Cure <input type="checkbox"/>
	Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>							Weld <input type="checkbox"/>
	Crushed/Crimped <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>							Wrong Stock Pulled <input type="checkbox"/>
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>							
	Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>							
	Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>							
	Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>								
	Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>								
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>								
	Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>								

DART AEROSPACE LTD	Work Order:	106067
Description: L-Bracket	Part Number:	D2012-115-1
Inspection Dwg: D2012-115 Rev: B		Page 1 of 1

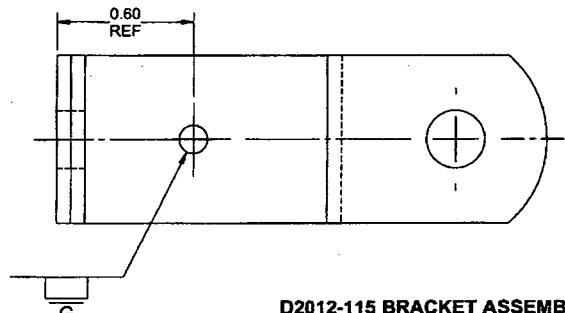
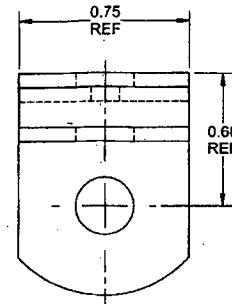
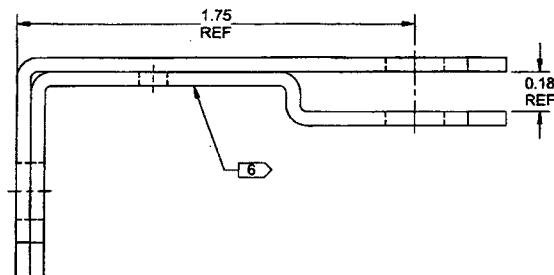
FIRST ARTICLE INSPECTION CHECKLIST

JAS

Measured by:	JM	Audited by:	27 go	Preliminary Approval:	
Date:	13-11-15	Date:	R-11-15	Date:	

Rev	Date	Change	Revised by	Approved
A	12.10.05	New Issue	KJ	<u> </u>

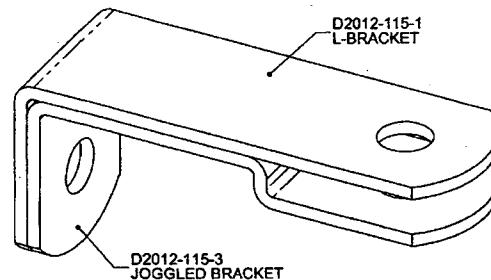
ITEM	QTY	P/N	DESCRIPTION
1	X	D2012-115	BRACKET ASSEMBLY
2	1	D2012-115-1	L-BRACKET
3	1	D2012-115-3	JOGGLED BRACKET



D2012-115 BRACKET ASSEMBLY

NOTES:

- 1) MATERIAL: PER SHEETS 2 AND 3
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2012-115" AND BATCH NUMBER "BXXXXX" PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 0.08 lbs



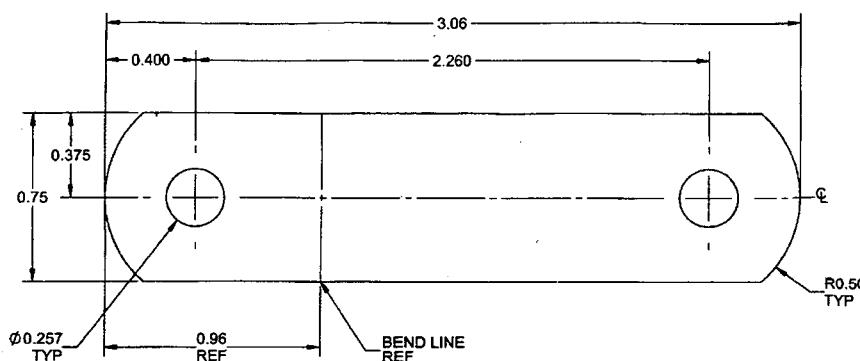
106067 M/S
13-08-29

RELEASED
2012-05-28
JW

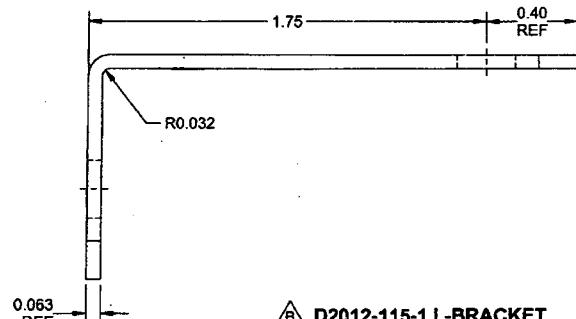
B	UPDATED TO CURRENT STANDARD/FORMAT: ADDITION OF D2012-115-1F/3REF REASON: FACILITATE MANUFACTURING (REF. PAR12-178).	MB	12.04.30
A	NEW ISSUE	SH	92.06.03
REV.	DESCRIPTION		
DESIGN	SH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>AS</i>	DRAWING NO.	REV. B
CHECKED	<i>AS</i>	D2012-115	SHEET 1 OF 3
MFG. APPR.	<i>AS</i>	TITLE	SCALE
APPROVED	<i>AS</i>	BRACKET ASSEMBLY	NTS
DE APPR.	<i>AS</i>	DATE	12.04.30

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106067



B D2012-115-1F FLAT PATTERN



B D2012-115-1 L-BRACKET
(MAKE FROM D2012-115-1F)

NOTES:

1) MATERIAL: AISI 304/316 SS SHEET ANNEALED 2B FINISH, 0.063 THICK, PER MIL-S-5059
OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240
REF. DART SPEC. M304516GA

2) FINISH: NONE

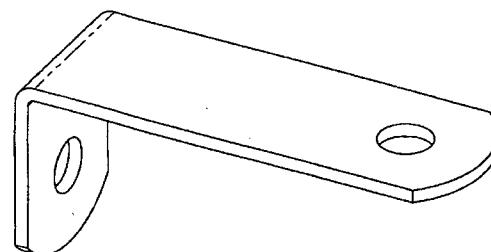
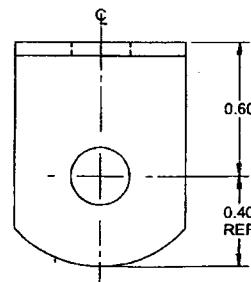
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: NONE

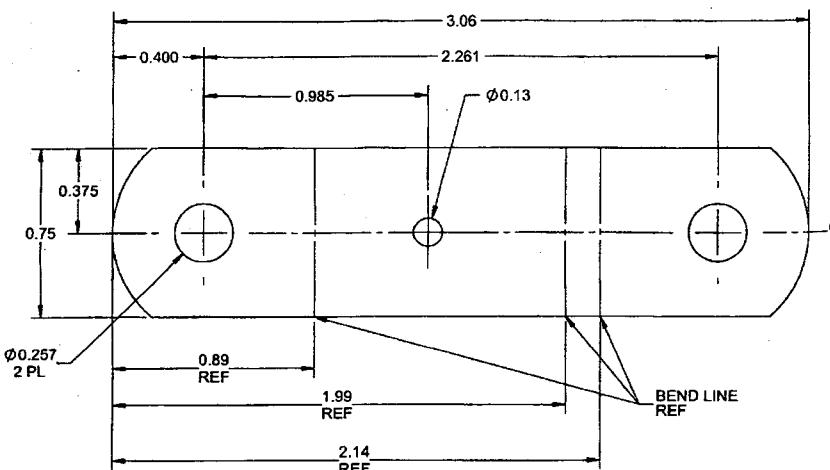
7) WEIGHT: 0.04 lbs



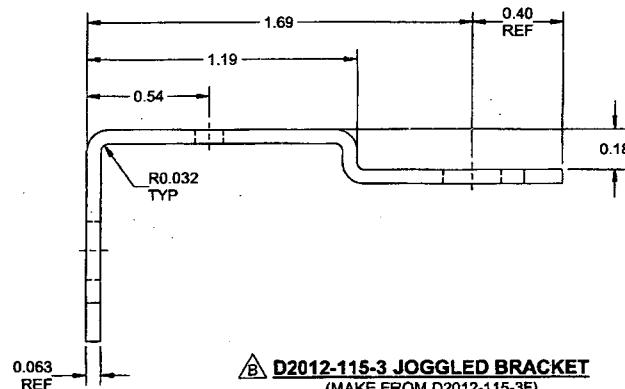
RELEASED
2012-05-28
W

DESIGN	SH	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>TS</i>	DRAWING NO.	REV. B
MFG. APPR.		D2012-115	SHEET 2 OF
APPROVED	<i>JAN</i>	TITLE	SCALE
DE APPR.	<i>SH</i>	BRACKET ASSEMBLY	
DATE	12:04:30	COPYRIGHT © 1982 BY DART AEROSPACE LTD	
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106067

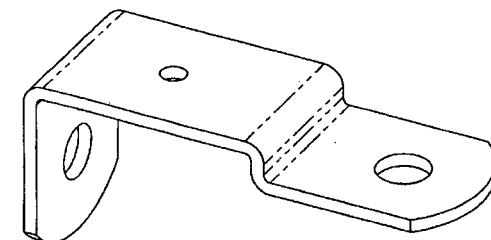


△ D2012-115-3F FLAT PATTERN

△ D2012-115-3 JOGGED BRACKET
(MAKE FROM D2012-115-3F)

NOTES:

- 1) MATERIAL: AISI 304/316 SS SHEET ANNEALED 2B FINISH, 0.063 THICK, PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 REF. DART SPEC. M304S16GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.04 lbs

RELEASED
2012-05-28

DESIGN	SH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN		REV. B
CHECKED	AS	DRAWING NO. D2012-115
MFG. APPR.		SHEET 3 OF 3
APPROVED	MM	TITLE BRACKET ASSEMBLY
DE APPR.		SCALE NTS
DATE	12.04.30	COPYRIGHT © 1992 BY DART AEROSPACE LTD THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED FOR THE PURPOSE FOR WHICH IT WAS ISSUED AND IS NOT TO BE COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.